

GW TECHNOLOGY: Dual-Phase Extraction

RACER PARAMETERS	Scenario A	Scenario B	Scenario C	Scenario D
	Small Site		Large Site	
	Easy	Difficult	Easy	Difficult
Media/Waste Type	Groundwater/Soil	Groundwater/Soil	Groundwater/Soil	Groundwater/Soil
Contaminant	VOCs	VOCs	VOCs	VOCs
Approach	In situ - Vacuum Enhanced Dual Phase Extraction	In situ - Vacuum Enhanced Dual Phase Extraction	In situ - Vacuum Enhanced Dual Phase Extraction	In situ - Vacuum Enhanced Dual Phase Extraction
Contaminated Area (SF)	21,780	21,780	43,560	43,560
Depth to Groundwater (ft)	15	15	15	15
Soil Type	Sand-Silt/Silty-Sand Mixture	Silt/Silty-Clay Mixture	Sand-Silt/Silty-Sand Mixture	Silt/Silty-Clay Mixture
Flow per Well (gpm)	5.0	1.0	5.0	1.0
Number of Vapor Extraction Wells	23	58	46	115
Vapor Flow Rate (cfm)	345	345	690	690
Safety Level	D	D	D	D
Bioslurping Cost	\$259,237	\$584,665	\$489,986	\$1,142,874
Carbon Adsorption Cost (Gas Treatment)	\$10,873	\$10,873	\$20,894	\$20,894
Carbon Adsorption Cost (Liquid Treatment)	\$9,969	\$9,969	\$9,969	\$9,969
Subtotal Cost	\$280,079	\$605,507	\$520,849	\$1,173,737
Remedial Design:				
Design Percentage	10%	9%	9%	8%
Design Cost	\$28,012	\$54,483	\$46,873	\$93,894
TOTAL MARKED-UP COSTS	\$308,091	\$659,990	\$567,722	\$1,267,631
CUBIC YARDS TREATED	12,100	12,100	24,200	24,200
COST PER CUBIC YARD	\$25	\$55	\$23	\$52
COST PER 1000 CUBIC YARDS	\$25,462	\$54,545	\$23,460	\$52,381